

# GOVERNMENT TRANSFORMATION AND STRUCTURAL RIGIDITY: *REDESIGNING A SERVICE ACQUISITION PROCESS*

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Organizations have been increasingly pushed into a fast pace of change by the globalization of the economy, the accelerated technological developments in information storage and retrieval, and the emergence of knowledge (as opposed to capital goods) as the main asset of organizations. Many radical change approaches have been developed to ease this transition. While these approaches sometimes succeed, in most cases they fail miserably—a phenomenon that has been usually blamed on poor change management. The author argues that structural factors are also to be blamed, particularly process rigidity caused by highly functional heterogeneity, fragmented expertise, and government regulation. This point is supported by the analysis of a re-engineering attempt of a core process of a public sector organization in Brazil. The author proposes a simple framework to identify process structural rigidity in public sector organizations, and provide the basis to understand how structural rigidity can oppose radical change.

**O**rganizational processes today are markedly different than they were 100 years ago. It has been estimated that in 1880 about 9 out of 10 workers produced and moved tangible, material things. In the mid-1990s this ratio was down to one out of five. The other four out of five workers currently produce and deliver intangible products such as information, computer software, and services (Drucker, 1993).

The accelerated development of new technologies, combined with the increasing globalization of the economy, has helped shape a global market in which organizations can have access to tools that make their processes efficient and effective anywhere in the world. So for most products generated and transferred within and between organizations today, whose soft elements (i.e., information, software, and service) can be delivered virtually in-

dependently of physical distance, fierce competition on a global basis has become commonplace.

To survive in such an environment, several organizations have had to become “virtual organizations,” in the sense that they have come to chiefly depend on knowledge and process flexibility to generate and deliver products on a competitive basis (Davidow and Malone, 1992; Mowshowitz, 1997). Capital goods are no longer such a strategic advantage to organizations as process-related knowledge is, a reality that is reflected in the often high market valuation of knowledge and other intangible assets (such as computer systems) as opposed to material organizational assets such as production machinery and factory buildings (Strassman, 1996; Toffler, 1991).

Organizational flexibility, as well as the accumulation and proper deployment of process-related knowledge, depend on structural characteristics of organizations such as departmental and functional configuration, hierarchical levels, and information access and flow (Argyris, 1977; Redding and Catalanello, 1994; Senge, 1990). Hence, it is surprising to see the current focus on change management in process-based organizational transformation efforts (Kettinger and Grover, 1995; Stoddard and Jarvenpaa, 1995), and the relative lack of interest on structural factors that themselves can prevent organizational change from happening.

Here we describe a re-engineering attempt in a public sector organization in Brazil, particularly regarding the attempt to redesign one of its core processes—a service acquisition process. This provides the basis for our subsequent discussion of structural factors that can prevent radical process-based change projects from achieving successful results. The focus of this discussion is on process rigidity in public sector organizations, and its relationship with process functional heterogeneity and degree of government regulation. These factors are defined from a process-centered perspective, and their link with knowledge specialization is established. We conclude with a comparison of our case and other cases in the literature, and derive implications for public sector organizations interested in (or already) conducting process-based radical change projects.

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### **RADICAL CHANGE’S FAILURE: BLAME IT ON BAD MANAGEMENT!**

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The movement in favor of radical process-based change leveraged by information technology known as re-engineering begun in 1990 with two seminal articles by Thomas Davenport and James Short (1990), and Michael Hammer (1990). Having gone beyond its initial phase of optimism, which reached its peak in the two years following the publication of the

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book *Reengineering the Corporation* authored by Hammer and Champy (1993), the re-engineering movement entered a crisis stage (Deakins and Makgill, 1997). It was argued that re-engineering had led to heightened worker stress and lack of process outcome quality in a number of organizations where it had been implemented (Burke and Peppard, 1995; Economist, 1996; Labich, 1994; Willmott, 1995). Disagreements in the mid 1990s between what many saw as the main forefathers of the re-engineering movement, Michael Hammer and James Champy, worsened the crisis. While Hammer has continued to focus on techniques to radically improve processes (Hammer and Stanton, 1995), Champy pointed out that re-engineering success would not likely be achieved without a radical change in management paradigms (Champy, 1995).

Much has been published about reasons why re-engineering attempts may fail, as well as about success factors in re-engineering (both types of account highlight essentially the same, as success factors can be seen as factors whose presence is likely to prevent a re-engineering attempt from foundering). The reasons provided in the literature to explain why re-engineering so often fails have had a common focus—management. The literature generally suggests that re-engineering attempts are likely to fail if they lack top management support, which is often cited as the chief reason for failure (Archer and Bowker, 1995; Hall et al., 1993). It also highlights the importance of management selection and adoption of a structured methodology for process redesign (Guha et al., 1993; Wastell et al., 1994). Lack of understanding by management of what re-engineering really entails is also cited as a source

of failure (Champy, 1995). King (1997) points out that since there is no universally accepted definition of organizational transformation, a notable source of failure in re-engineering is the confusion by management of incremental with radical process improvement. Top management leadership and strong involvement is singled out by Hewitt and Yeon's (1996) survey of United Kingdom companies engaged in re-engineering attempts as the main success factor in radical process-based organizational redesign.

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Although re-engineering has been practiced in a variety of industries and economic sectors (Hewitt and Yeon's, 1996) with both positive (Bell, 1994; Caron et al., 1994) and negative results (Champy, 1995), little has been said about the influence of structural factors (i.e., those related to an organization's structure) on re-engineering success and failure. Can success factors be contingent on specific industry or economic sector characteristics? Or, more specifically, can certain characteristics of a specific industry or sector of the economy influence the structural rigidity of organizational processes—i.e. their structural resistance to change—so as to make re-engineering more likely to fail? The case study-based research discussed here suggests a positive answer to this question as regards one particular sector of the economy—the public sector. The case study on which the research was based is described next.

## **CASE STUDY: RE-ENGINEERING A SERVICE ACQUISITION PROCESS**

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Since the early 1990s, corporate Brazil experienced a growing interest in the adoption of voluntary quality standards; interest that was fed by a number of success stories (Ottoni, 1993). The most popular among these quality standards have been the ISO 9002, adopted by companies that produced goods or services based on third-party specifications; the ISO 9001, adopted by companies which developed their own products and services; and several versions of these two standards tailored for specific sectors and industries (Arnold, 1994; Voehl et al., 1994).

On the tail of the success of such orientation toward voluntary standards came

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a growing uncertainty about the need for government regulatory bodies and state-owned inspection companies in a number of industries. One such company was PubliCorp

(pseudonym), a large civil engineering and construction services inspection company owned by a state government in Brazil. Among PubliCorp's main missions was that of enforcing government regulations in the construction industry.

The prospect of deregulation pushed PubliCorp into considering moving from an enforcement role to, possibly, a quality consulting one. This would also force PubliCorp into a situation in which it

would have to supply added-value services to construction companies, as it would no longer be able to deliver compulsory-purchase inspection services. As a consequence, PubliCorp's future survival would depend on the efficiency of its processes and the quality of the services delivered through them.

Pressed to become more competitive, PubliCorp set out in 1992 to re-engineer several of its business processes, including one of its core processes—the acquisition of construction services. As PubliCorp was a state-owned enterprise, the acquisition of services had to be made through the setting up and coordination of public bids, whereby PubliCorp was expected to select the most competitive contractors to carry out construction and maintenance jobs on public estate and transportation networks. This re-engineering project was seen by PubliCorp's top management and government officials as a test of the company's ability to compete in what some of them believed could in the future be a largely deregulated civil construction industry.

### **THE STAGES OF THE RE-ENGINEERING ATTEMPT**

The research and normative literatures on business process re-engineering have identified a number of generic features that seem to be present in re-engineering attempts, whether these attempts fail or succeed to deliver the expected outcomes. Two of these generic features, both present in the re-engineering attempt at PubliCorp, are (Davenport and Stoddard, 1994): First is a focus on core processes that involve several departments or the whole organization. Core processes are defined (Kock et al., 1997) as those processes related to

the production and delivery of outputs to the external customers of the organization. Second is the use of information technology (IT) to enable the implementation of the new business processes devised through the re-engineering effort.

Another unfortunate characteristic of most re-engineering attempts has been a consistent failure to deliver the expected outcomes, of which the most important are a radical improvement in the efficiency of the processes redesigned or of the customer-perceived quality of the outputs of those processes. As far as failure rates of re-engineering attempts go, a widely cited figure is that obtained in a survey discussed by Champy (1995): Seventy percent or more of all re-engineering attempts fail to attain their goals. In this respect, the re-engineering attempt at PubliCorp was also typical in that it too failed to achieve its goals. The dynamics of this failure can be more easily understood by splitting the attempt into five main stages: problem definition and planning, IT infrastructure implementation, IT downsizing, core process re-engineering attempts, and process automation.

**Stage 1: Problem definition and planning.** Two small work groups with 10 to 12 members each (the number of members varied slightly along the whole attempt) were formed to tackle different issues in the re-engineering attempt. The IT group's main goal was to deal with the technical issues related to the setting up of an IT infrastructure to enable the re-engineered processes. The process redesign (PR) group was assigned the role of analyzing, proposing radical changes in the target business processes, and coordinating the implementation of these changes.

Re-engineering projects often start with the identification of urgent problems that are expected to be solved through radical process redesign (Hammer, 1996; Hammer and Champy, 1993). Two such problems were identified at PubliCorp regarding the process of acquisition of construction services: First was the centralization of data processing jobs in one department, largely due to the fact that product and service supplier databases were kept in a central main frame computer operated by that department; second was the large number of "contact points" in the acquisition process, caused mainly by a disproportionate number of specialized tasks and control checks that had to be performed by employees with expertise in different areas (e.g., tax lawyers, construction budget experts, engineers specializing in building structures, concrete experts, public bid advisers). A re-engineering project schedule was laid out to address these problems, which set up a number of steps for IT infrastructure development as well as business process analysis, radical redesign, piloting, and incorporation into the organizational structure.

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**Stage 2: IT infrastructure implementation.** Solutions to both problems identified in Stage 1 of the re-engineering attempt were seen by the IT and PR groups as begging a new IT infrastructure based on a local area network (LAN), which was expected to produce immediate gains on its own, as well as support the implementation of changes in the core acquisition

process. In approximately eight months three LAN servers with over 100 networked workstations had been set up. This set the stage for the downsizing of databases and data processing applications from the central mainframe computer to the LAN server.

**Stage 3: IT downsizing.** The downsizing of database applications from PubliCorp's central mainframe computer to the LAN server was seen by management and employees as having itself increased the efficiency of the core acquisition process targeted for redesign, by allowing fast and decentralized access by all staff involved in the process to product and service supplier information, as well as supporting the implementation of process simplifications aimed at reducing "contact points" between staff.

Although some technical problems and opposition from the old centralized data processing department had to be dealt with, everything seemed to be going as planned and nothing suggested that the re-engineering attempt was not in its way toward a successful completion. The general feeling among management at this stage was that there was only one type of obstacle to be overcome so the re-engineering attempt would eventually succeed: technical obstacles. However, nearly two years had gone by since the initial decision to conduct the re-engineering attempt had been made, and yet no actual changes of radical proportions in any of PubliCorp's core processes had been effected.

**Stage 4: Core process re-engineering attempts.** After a careful analysis of the process of acquisition of construction services, the PR group developed an initial plan to radically redesign the process. Most of the analysis was based in two

main large process models: a workflow model (Soles, 1994; Tagg, 1996) representing the process as a set of over 100 interrelated activities; and a role-activity diagram (Moretti et al., 1996) showing the flow of documents between organizational roles as well as identifying the "contact points" in the process. Figure 1 shows a simplified workflow representation of a small part of the process (the one related to selecting a service supplier). Names of activities and organizational roles performing the activities (shown within parentheses) are in the rectangles.

The plan devised by the PR group involved the application of simple re-engineering techniques, such as structuring the organization around outcomes rather than single tasks (Hammer, 1990; Davenport, 1993) and reducing unnecessary controls (Hammer and Champy, 1993; Kock, 1995).

Structuring the organization around outcomes, not tasks, implies having one person perform a set of activities that produce one single output, rather than several people separately performing each single activity (Buzacott, 1996). The application of this principle by the PR group has indeed led to a considerable conceptual reduction in the number of roles, and therefore a decrease in the number of contact points and a consequent reduction in cycle time, in the process shown in Figure 1. However, these reductions were achieved only from a conceptual perspective. In reality, none of the roles in the process could be replaced by any other role, for two main reasons: Different types of expertise were required to perform different activities; and, most important, the whole process was originally designed based on the federal and state laws for



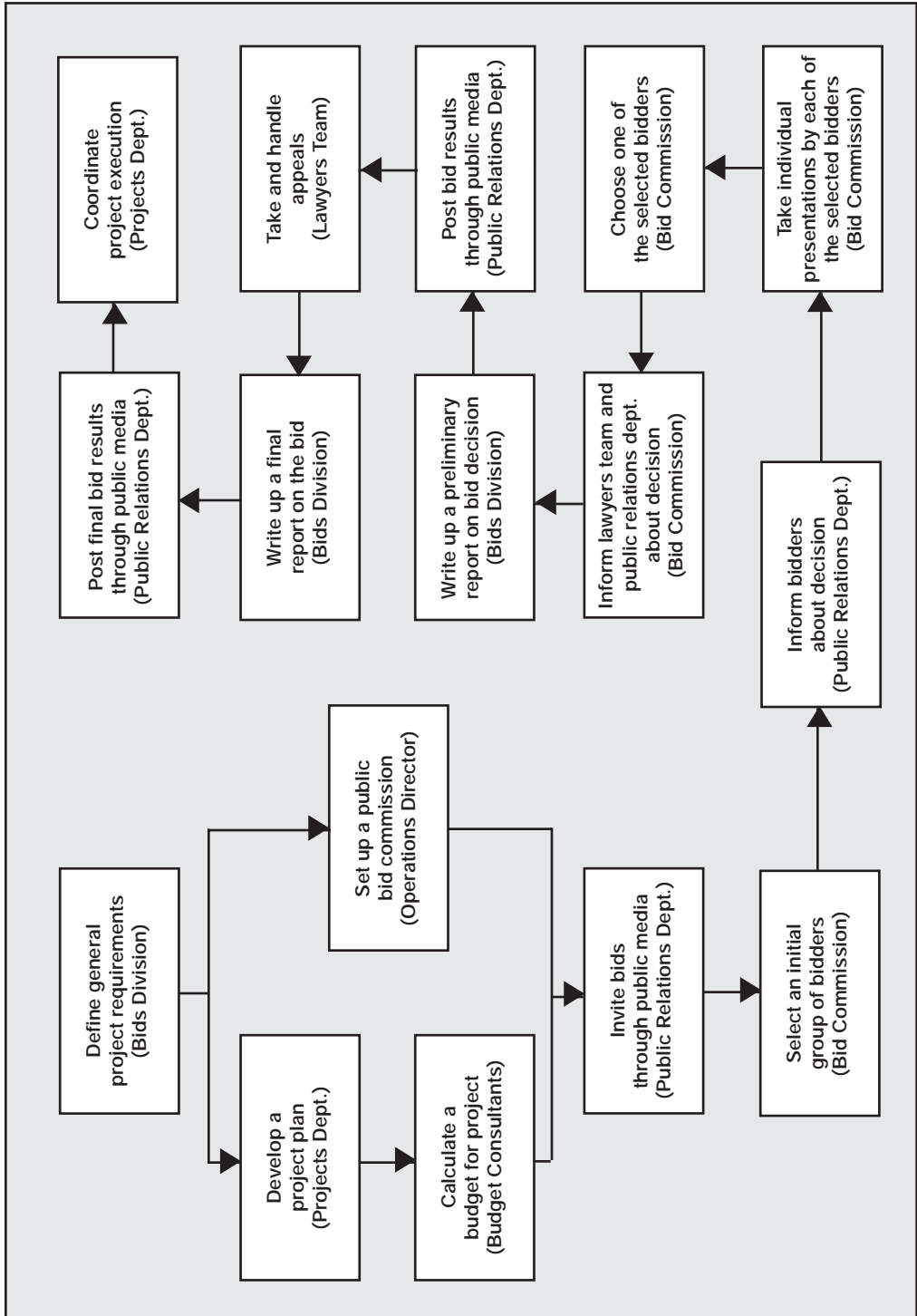


Figure 1: The Process of Selecting a Supplier

public bids, which considerably limited the number of possible changes in its role and workflow structure—even small changes could lead the process to fall outside legal parameters.

For example, some improvements could conceptually have been achieved by pushing the responsibility of calculating budgets from budget consultants to the Projects Department. This could reduce

time wasted, as budget consultants typically had to wait for a project plan to be generated and sent to them by the Projects Department before they could start working on a budget for the project (see Figure 1). However, this would likely be achieved at a

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cost, probably a decrease in the precision of quotes and hence the quality of the overall budget, as the employees in the Projects Department were not prepared to perform the complex calculations involved in generating construction budgets. Moreover, and most important, the law required that an initial budget be produced by an “independent group of recognized experts,” hence the assignment of the job to a team of expert budget consultants (all employed by a prestigious consulting firm). The same goes for the taking and handling of appeals on the decision made by the bids commission. For example, could these not be performed by the Bids Division itself? After a careful analysis, the answer was

found to be negative, as the law required that a team of attorneys registered with the Brazilian Bar Association be involved in this activity.

Conceptually, reducing “unnecessary controls” would certainly reduce the time required to select a supplier. A number of these “unnecessary” controls were embedded in the process, even though not all of them are explicitly shown in Figure 1. For example, after a decision had been made by the Bid Commission about the winner of the public bid, it would have to first be communicated to the team of lawyers and the Public Relations Department. The Bids Division would then draft a report on the bid, including the decision made by the Bid Commission, which would then be thoroughly checked by the team of lawyers for full compliance with the complex legal requirements regarding public bids. Finally the report would be checked again by the Public Relations Department, which would then provide a summary of the report to the public through media vehicles—large newspapers and official government publications.

These checks were seen as extremely important to guarantee that no mistakes would be committed that could lead to the invalidation of a public bid on legal grounds. Also, several checks were explicitly prescribed by the law. For example, PubliCorp was required by law to set aside some time to handle administrative appeals through its team of lawyers, an activity that was included by legislators in the public bid process to make sure that its execution could be thoroughly checked and formally questioned by all bidders—and often bids were questioned, typically by those bidders who were unsuccessful in the bid.



Over approximately one year, several attempts were made by the PR group to re-engineer the process of acquisition of construction services and other core processes at PubliCorp. All of these attempts were consistently unsuccessful in that only small process changes were effected, and less than relevant positive bottom-line results (such as possible cost and cycle time reductions) were achieved. The sheer legal rigidity of the process was singled out by a number of PR group members as the main impediment to the success of these attempts. One of these members pointed out that “radical change in public organizations such as [PubliCorp] must be accompanied by radical changes in the law...but changes in the law take time and a lot of lobbying to be achieved...”

**Stage 5: Process automation.** The problems faced by the PR group led it on a path where eventual destruction was in sight (should it not be able to accomplish at least part of its goals). In the meantime, however, the members of this group had not only become an established and cohesive team at PubliCorp, but also acquired considerable power due to the frequent interactions with PubliCorp’s chief executive officer (CEO) and board of directors during its more than three years of existence. In an auto-preservation attempt, the PR group gradually moved away from process re-engineering to automation—that is, the PR group began to simply automate processes rather than trying to radically redesign them. This move took place in an almost imperceptible way, as process automation was presented by the PR group to the CEO and senior executives as process-focused change and therefore analogous to process re-engineering.

The PR group tactics have not gone unquestioned, at least initially, but by then its political power within the organization was enough to eliminate any opposition. For example, some opposition to the PR group was championed by PubliCorp’s chief information officer (CIO), who questioned the need for the existence of the PR group since it was not doing its job. The reaction was swift and vicious, leading to the officer’s quick dismissal on a few dubious charges of negligence and involuntary accessory to computer theft.

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After this incident, the PR group carried on automating processes while the IT group provided the necessary LAN infrastructure support. As a result, four years after the re-engineering attempt was begun, few bottom-line process improvements have been achieved, in spite of the over \$8 million spent in the attempt to re-engineer PubliCorp. Nevertheless, at least some in the media thought of the re-engineering attempt as a relatively successful endeavor. Among other distinctions, the CEO was hailed by one local independent newspaper as the architect of a very successful “modernization” of PubliCorp with “state-of-art” IT, and portrayed as a role model for public sector managers.

## STRUCTURAL FACTORS PREVENTING RADICAL CHANGE: A PUBLIC SECTOR VIEW

Arguably, a number of factors could have contributed to the failure of the re-engineering attempt at PubliCorp. It could have been argued that the PR group acted unethically, letting their struggle for power prevent them from searching for genuine radical process improvements in the organization's processes, or that the opposition from employees led to the failure of the re-engineering attempt. It could also have been argued that there was not enough top management support for radical change, as the CEO apparently chose to ignore the warnings of his CIO about

"Process functional heterogeneity can be measured by counting the number of different organizational functions or teams involved in the execution of a process (e.g., CEO, budget consultants, lawyers team)."

the PR group's ineffectiveness, and accept the use of the project by the local media as an example of a successful attempt to modernize a public organization. Finally, it could have been argued that there

was not a clear understanding from the part of the CEO or the PR group about what radical process improvement entails, and how it should be properly conducted.

However, should all the above circumstances be modified so as to favor re-engineering, there would still be a major obstacle to be overcome at PubliCorp—the process rigidity imposed by the Brazilian government regulation. Other than employees' resistance to change, the case study suggests the existence of a structural resistance to change built in the organiza-

tional process. Structural resistance in the core acquisition process targeted for re-engineering at PubliCorp can be seen as the resistance embedded in the process itself, not only due to the way activities were designed to be carried out and by whom, but mainly due to the fact that this design was set out in the form of governmental legislation. PubliCorp's case suggests an avenue for the understanding of process rigidity in the public sector, whereby it can be viewed as a function of at least two process variables—functional heterogeneity and degree of regulation. Table 1 is an attempt to summarize this understanding into a two-by-two matrix.

Process functional heterogeneity can be measured by counting the number of different organizational functions or teams involved in the execution of a process (e.g., CEO, budget consultants, lawyers team). Functional heterogeneity in organizational processes has been found to be highly correlated with the number of knowledge specialization areas found in processes (Kock and McQueen, 1996)—that is, the number of different types of expertise required to perform a process. Due to virtually insurmountable obstacles to a person becoming an expert in several areas at the same time, career choices are made that lead to knowledge specialization. A related consequence is that functional heterogeneity is likely to be high in many processes carried out within knowledge-intensive organizations (Kock et al., 1996).

Table 1 concisely states that a high functional heterogeneity combines with a high degree of process regulation to generate a high structural rigidity in organizational processes. The case study supports this conjecture and provides the

Table 1:  
Structural Rigidity as a Function of Functional Heterogeneity  
and Degree of Regulation

<b>High functional heterogeneity</b>	<b>Medium rigidity</b> For example, semi-autonomous public and knowledge-intensive institutions such as state universities.  (Re-engineering is likely to fail without changes in legislation.)	<b>High rigidity</b> For example, public and knowledge-intensive companies such as inspection firms in knowledge-intensive industries (PublicCorp).  (Re-engineering is very likely to fail without changes in legislation.)
	<b>Low rigidity</b> For example, semi-autonomous government inspection branches in non knowledge-intensive areas such as farm inspection departments.  (Re-engineering may succeed without changes in legislation.)	<b>Medium rigidity</b> For example, government inspection branches in non knowledge-intensive areas such as internal revenue services.  (Re-engineering is likely to fail without changes in legislation.)
<b>Low functional heterogeneity</b>		
	<b>Low degree of regulation</b>	<b>High degree of regulation</b>

basis for the understanding of the dynamics through which process rigidity opposes attempts to radical process redesign. Demands for high functional heterogeneity lead to a high number of functional roles in processes (e.g., budget consultants and lawyers in PubliCorp's acquisition process), which are then the focal point around which government regulation is created and passed—for example, the legal prescription that construction budgets be prepared by a group of "recognized experts," the budget consultants, and the related criteria prescribed in law to identify and hire these experts.

Government regulation solidifies the procedures involving each one of the organizational functions performing process activities, turning each function into a potential focus of resistance against

radical change. PubliCorp's case shows that the line people who carry out knowledge-intensive activities in government-regulated processes are likely to be more familiar with the change constraints imposed by government regulation on those activities than consultants and managers. After all, line workers know their work better than others not directly involved in it (Deming, 1986). Hence, it often becomes their duty to repeatedly inform the members of re-engineering teams (e.g., the PR group at PubliCorp) that radical redesign cannot be achieved the way it is proposed. This may lead to communication breakdowns between line workers and re-engineers as the former group sees the latter group as ineffective, and the latter group sees the former as a biased source of information that does not seem to favor

the re-engineering attempt anyway. The final result is likely to be a failed re-engineering attempt.

### WHAT ABOUT THE SUCCESS STORIES?

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Some of our conclusions may be questioned based on successful examples of process change in the public sector. But an analysis of successful cases reported

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so far does not invalidate our conclusions, but provides the background on which to frame our understanding of process-related change in the public sector and what it entails. There have been ex-

amples of successful outsourcing of core public services or large components of these services to private companies (Coppell, 1994; Mukherjee and Braganza, 1994; Williams, 1994); and of the successful transfer of modified government functions to the community served by local government departments (e.g., police departments) through what are often referred to as "community empowerment" initiatives (Osborne and Gaebler, 1992, Chapter 2).

Some of the examples above can be seen as instances of successful re-engineering projects by some, as they might indeed have led to radical change in core governmental processes. However, they do not satisfy one basic criterion to be considered in re-engineering projects—

that at least one organizational process be radically redesigned, leading to a radical improvement in outcome quality or productivity of the process while it (the process) is still part of the organization. The above examples of successful change in the public sector have relied heavily on the transfer of whole processes or parts of these of these processes to private hands or to the community. After the processes had been farmed out, the stage was set for radical process change. In these cases, however, radical change occurs when the processes are outside the public organization's boundaries. From this perspective, these initiatives resemble much more privatization than re-engineering, as the processes are no longer part of the public organization when they are radically redesigned.

There are very few published public sector cases of successful re-engineering in situations of high rigidity, relative to the number of cases about re-engineering in low rigidity (usually fully private) organizations (although there have been reports of successful "nontraditional" re-engineering in high-rigidity organizations, such as "knowledge-based re-engineering," where part of the expert knowledge involved in carrying out process activities is built in knowledge-based systems; see Nissen, 1997).

Even in situations of medium rigidity, apparently successful cases of radical change in public institutions and companies or government departments resemble more massive downsizing, where the focus is on reducing the size of the organization by shedding off apparently unnecessary departments and personnel, than re-engineering, whose focus is on radically redesigning organizational processes.

Many such examples exist, as the case of the New Zealand Ministry of Agriculture and Fisheries, which downsized thirteen divisions with 6,000 employees in the late 1980s into five divisions with 2,600 employees in the early 1990s (French, 1994), and the case of 13 Swedish government agencies that laid off half of their employees in one blow in 1990 (Naschold and Otter, 1996).

## **CONCLUSION AND IMPLICATIONS**

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We have discussed in this paper the role of structural process rigidity as an obstacle to radical process-based change in public sector organizations. A preliminary framework for understanding process rigidity is proposed, where two main influences are identified. The framework proposes that process rigidity is influenced by the functional heterogeneity of processes, and the degree of government regulation imposed on processes in public sector organizations. We argue that high-rigidity processes may not be amenable to radical redesign if they are not outsourced to less regulated organizations such as private companies and community associations. We base our argumentation on the analysis of a failed attempt to re-engineer a service acquisition process in a public sector organization, and on some cases from the literature on public sector transformation.

Two main implications for public sector organizations stem from this research. First, public sector organizations should question whether radical change is really necessary before embarking on large-scale and radical process improvement attempts, as the probability of failure in these attempts is necessarily high. Incremental improvement initiatives have proven to be less risky, while having in many cases yielded highly satisfactory organizational improvements, particularly in process outcome quality (Koehler and Pankowski, 1996; Raff and Beedon, 1994).

Second, public sector organizations where radical change is seen as absolutely necessary can benefit from the analysis of their processes regarding their functional heterogeneity and degree of regulation before initiating their radical change projects. Whenever radical changes in the law are possible in a short period of time (i.e., less than one year), high-rigidity organizations may consider embarking on process re-engineering attempts. However, since radical changes in law usually cannot be quickly accomplished in most democratic countries, most high-rigidity organizations in the public sectors within these countries are likely to be more successful if they move towards other alternative approaches to radical change such as privatization and community empowerment.

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